

Edgars Creek – Section 35

HumeGard® GPT

Case study



HumeGard® GPT adapts to unusual site requirements

The installation of a HumeGard® Gross Pollutant Trap (GPT) at Edgars Creek in Epping, Victoria was in partnership with the City of Whittlesea, Melbourne Water and the consultant, The Landplan Group. FRR Cinel led the installation and has demonstrated the unit's adaptability, with the GPT being installed in an unusually shallow site yet providing a relatively large treatment capacity. Section 35 of the Edgars Creek project is part of an ongoing development within the surrounding area of Epping in Melbourne's expanding north east suburbs. The GPT was installed to capture gross pollutants from a new development and a future commercial site upstream, in compliance with the State Environment Protection Policy (SEPP). This policy requires the effective capture of gross pollutants from developed flows without pressurising the upstream drainage systems and causing adverse flooding.

The unique design of the HumeGard® GPT, with its floating diversion boom, produces minimal head losses ($k=0.2$) even under high flow conditions, minimising the potential for upstream flooding.

The Edgars Creek site provided some challenges, with minimal available soil depth and limitations on excavation. The treatment system design also needed to accommodate multiple drains. A primary treatment system designed for large flow rates was going to be a large structure. However, the **tailored design** of the HumeGard® GPT has delivered a system with a large treatment capacity of 12 m³, with a **low excavation profile** of 1,065 mm (similar projects usually have a depth to invert of between 1,600 and 2,500 mm).

As the design also called for **twin 600 mm diameter inlet and outlet pipes**, the HumeGard® GPT was adapted to accommodate the drainage. Humes engineers customised the design of the HumeGard® GPT to include the shallow depth to invert and multiple pipes. The diversionary boom was also purpose-built, with its weight and height adjusted to accommodate the truncated headroom.

The installation was completed within three hours.

On a challenging site, **speed and ease of installation** are particularly valuable, as was the design assistance from Humes Water Solutions, which **saved the designer and contractor time and money**, while ensuring stringent environmental requirements were met.

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Project

Edgars Creek – Section 35,
Epping VIC

Owner

City of Whittlesea

Product supplied

HumeGard® GPT 40B

